

Appln. No. 10/726,760
Amendment dated December 7, 2006
Reply to Office Action dated June 7, 2006

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Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of the claims in this application:

Listing of Claims:

1. (Currently Amended) A turbocharger and exhaust manifold system comprising
a turbine housing (6, 7, 22) defining a rotor space (15) for receiving and accommodating
a turbine rotor (18);

an exhaust gas manifold of a combustion motor (20), having an exhaust gas manifold
piece (4) said exhaust gas manifold including that includes a branch pipe (4') that connects
connecting said turbine housing (6, 7, 22) to at least one piece (3, 4) of [[an]] said exhaust gas
manifold of a combustion motor (20), wherein a portion of the branch pipe (4') extends into at
least a portion of the turbine housing (6);

wherein the turbine housing (6, 7, 22) and at least the branch pipe (4') for the connection
with the exhaust gas manifold piece (3, 4) are made of sheet metal, and

wherein the exhaust gas manifold pieces (3, 4) are in thermal connection with said
turbine housing (6, 7, 22), wherein the thermal connection is at least partially realized by a
sliding connection.

- 2-3. (Cancelled)

4. (Previously Presented) The turbocharger and exhaust manifold system according to
claim 1, wherein said heat conductive connection is formed between first and second tubular

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elements by a conically widening portion (32; 32') of one of the tubular elements, followed by a cylindrical portion (32'') into which the tubular end of the respective other element is inserted, the conically widened portion having an angle (α) of at most 30° and whereby the inner surface of the cylindrical portion (32'') abuts onto the outer surface of the tubular end of said respective other element, wherein one of said tubular elements is the housing (6, 7, 22) and the other of said tubular elements is the branch pipe (4').

5. (Currently Amended) The turbocharger and exhaust manifold system according to claim [[3]] 1, wherein said heat conductive connection is formed between first and second tubular elements, wherein said heat conducting connection comprises a cylindrical portion (32'') of one of the tubular elements into which the tubular end of the respective other tubular element is insertable, wherein the inner surface of the cylindrical portion (32'') abuts onto the outer surface of the branch pipe (4').

6. (Previously Presented) The turbocharger and exhaust manifold system according to claim 1, wherein said housing (6, 7) consists of at least two layers of sheet metal arranged one outside of the other, wherein the outer one (22) is thicker than the inner one (6).

7 (Previously Presented) The turbocharger and exhaust manifold system according to claim 6, wherein the distance between said two layers of metal sheet (6, 22) over the bigger part of the extension of the housing is at least 1 mm.

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8. (Previously Presented) The turbocharger and exhaust manifold system according to claim 6, wherein the inner of the sheet metals layers (6, 22) is attached to the branch pipe (4') by a sliding connection, whereas the respective outermost sheet metal layer (22) is formed of a first spiral housing half part (6) and a second half part (7).

9. (Previously Presented) The turbocharger according to claim 1, wherein outside the inner layer of sheet metal (6) of the housing (6, 7, 22) there is at least one insulation layer (24, 25).

10. (Previously Presented) The turbocharger and exhaust manifold system according to claim 1, wherein said housing (6, 7) is assembled from at least two mutually complementary spiral portions, which are connected to each other by welding, whereas an exhaust gas inlet (21) of the housing wall and said branch pipe (4') are in two parts, each of which is respectively in one piece with the corresponding spiral portion.

11. (Previously Presented) The turbocharger and exhaust manifold system according to claim 4, wherein said angle (α) is at most 20° .

12. (Previously Presented) The turbocharger and exhaust manifold system according to claim 4, wherein said angle (α) is at least 7° .

13. (Currently Amended) The turbocharger and exhaust manifold system as in claim [[2]] 1, wherein said manifold piece (4) is stamped sheet metal

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14. (Original) The turbocharger and exhaust manifold system as in claim 13, wherein the exhaust gas elbow pipe (1) is stamped sheet metal
15. (Original) The turbocharger and exhaust manifold system according to claim 6, wherein outer sheet metal (22) is 1.5 to 3 times thicker than the inner sheet metal (6).
16. (Original) The turbocharger and exhaust manifold system according to claim 6, wherein the distance between said two layers of metal sheet (6, 22) at least over the bigger part of the extension of the housing, a distance of is between 2 and 5 mm.
17. (Original) The turbocharger and exhaust manifold system according to claim 9, wherein the insulation layer (24, 25) is made of a textile tissue within which is embedded a metal layer (26).
18. (Original) The turbocharger and exhaust manifold system according to claim 16, wherein the insulation layer (24, 25) is a woven or knitted fabric and wherein said metal layer (26) is a sheet metal layer.
19. (Previously Presented) A turbocharger and exhaust manifold system comprising:
a turbine housing (6, 7, 22) defining a rotor space (15) for receiving and accommodating a turbine rotor (18);

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a branch pipe (4') connecting said turbine housing (6, 7, 22) to at least one piece (3, 4) of an exhaust gas manifold of a combustion motor (20);

wherein the turbine housing (6, 7, 22) and at least the branch pipe (4') for the connection with the exhaust gas manifold piece (3, 4) are made of sheet metal,

wherein the exhaust gas manifold pieces (3, 4) are in thermal connection with said turbine housing (6, 7, 22) at least partially realized by a sliding connection, and

wherein said heat conductive connection is formed between first and second tubular elements by a conically widening portion (32; 32') of one of the tubular elements, followed by a cylindrical portion (32'') into which the tubular end of the respective other element is inserted, the conically widened portion having an angle (α) of at most 30° and whereby the inner surface of the cylindrical portion (32'') abuts onto the outer surface of the tubular end of said respective other element

20 (Previously Presented) A turbocharger and exhaust manifold system comprising.

a turbine housing (6, 7, 22) defining a rotor space (15) for receiving and accommodating a turbine rotor (18);

a branch pipe (4') connecting said turbine housing (6, 7, 22) to at least one piece (3, 4) of an exhaust gas manifold of a combustion motor (20);

wherein the turbine housing (6, 7, 22) and at least the branch pipe (4') for the connection with the exhaust gas manifold piece (3, 4) are made of sheet metal,

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wherein the exhaust gas manifold pieces (3, 4) are in thermal connection with said turbine housing (6, 7, 22) at least partially realized by a heat conductive sliding connection formed between first and second tubular elements,

wherein one of said tubular elements is the housing (6, 7, 22) and the other of said tubular elements is the branch pipe (4'), and

wherein said heat conducting connection comprises a cylindrical portion (32") of one of the tubular elements into which the tubular end of the respective other tubular element is insertable, wherein the inner surface of the cylindrical portion (32") abuts onto the outer surface of the branch pipe (4')